

Response
Serial No. 09/604,072
Attorney Docket No. 000808

REMARKS

Claims 1 - 9 are pending in the present application. By this Amendment, claim 4 has been amended. No new matter has been added. It is respectfully submitted that this Amendment is fully responsive to the Office Action dated December 28, 2004.

Allowable Subject Matter:

Applicant gratefully acknowledges the indication in item 4 of the Action that claims 1-3 have been allowed.

In addition, Applicant also gratefully acknowledges the indication in item 5 of the Action that claims 5 - 9 would be allowable if amended in independent form to include the features of their respective base and intervening claims. However, for at the reasons set forth below, it is respectfully submitted that all of claims 4 - 9 are allowable.

As to the Merits:

As to the merits of this case, the Examiner maintains the following rejection:

claim 4 stands rejected under 35 USC 102(b) as being anticipated by Tsang et al. (U.S. Patent No. 5,900,623, of record). This rejection is respectfully traversed.

Claim 4, as amended, now calls for *a charge amplifier, connected to said transfer gate of said pixel, for converting said outputted charge to a voltage.*

For example, as shown in Fig. 9 of the present application, the transfer gate 10 of each pixel is connected to a charge amplifier 41, 43, which converts the output charge to a voltage.

With regard to Tsang, the Examiner asserts that Tsang discloses:

a transfer gate connected to light sensitive portion, for outputting a charge which is also stored in said light sensitive portion after being depleted after being depleted by becoming conductive in response to selection signal (transistor N2, col. 7, lines 60-61 and photodiode PD), a charge amplifier connected to said pixel, for converting to a voltage said detection capacitor charge, which is outputted from the pixels (Col-Amp, col. 11, lines 1-15, Figure 6).¹

However, as shown in Fig. 6 of Tsang, the transistor N2, which the Examiner alleges corresponds to a transfer gate, is clearly not connected to either the column output circuit 250j or the amplifier block 280.

As such, it is respectfully submitted that Tsang fails to disclose or fairly suggest the features of claim 4, as amended, concerning *a charge amplifier, connected to said transfer gate of said pixel, for converting said outputted charge to a voltage.*

¹ Please see, lines 10-17, page 3 of the Action.

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In addition, it should be emphasized that according to Tsang, the light-sensitive portion MCAP is not depleted by the reset transistor N3. In contrast, an important feature of claim 4 is, for example, that the photo-sensitive portion 113 of Fig. 10 is depleted at reset and the charge accumulated at the photo-sensitive portion after the reset is output via the transfer gate to the charge amplifier. According to this feature, the noise can be deleted as explained in the present specification.

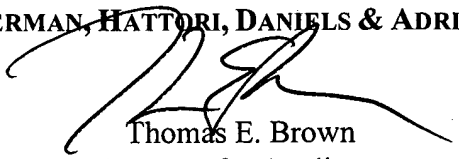
In view of the aforementioned amendments and accompanying remarks, Applicant submits that the claims, as herein amended, are in condition for allowance. Applicant requests such action at an early date.

If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicant's undersigned attorney to arrange for an interview to expedite the disposition of this case.

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If this paper is not timely filed, Applicant respectfully petitions for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,
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